

### **DETAILED ACTION**

1. In response to applicant's telephone inquiry regarding the last Office action, the following corrective action is taken.

The period for reply of 1 MONTH set in said Office Action is restarted to begin with the mailing date of this letter.

### **Election/Restrictions**

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, Claims 65-83, drawn to "A nano-structure of oxide or complex oxide of a metal element."  
Group II, Claims 84-107, drawn to "A method of preparing a nano-structure of oxide".  
Group III, Claims 108-122, drawn to "A high-performance nano-hole array."  
Group IV, Claims 123-125, drawn to "A nano-rod."  
Group V, Claims 61-64, drawn to "A nano-needle for micro-injection."

3. The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Kasuga, et al. in USPN (6027775 A) teaches the special technical feature including the embodiments that pertain to the groups above. Based on Applicant's disclosure, titanium dioxide

meets the recitation of the invention being able to form a complex with a fluoride complex ion ({Applicant} [0031 | 0120 | 0121] | Examples). Kasuga teaches a titanium oxide nanostructure ({Kasuga} C1:L38-44) that can be formed into an array ({Kasuga} "Other Publications" section), nanorod (nanotube) ({Kasuga} C1:L38-44), or needle shape ({Kasuga} C1:L61-57). The special technical feature is then clearly demonstrated in prior art; unity of invention is therefore lacking.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to

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be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

### **Conclusion**

Any inquiry concerning this communication should be directed to SHAWN R. HUTCHINSON whose telephone number is (571)270-1546. The examiner can normally be reached on 7 AM to 5 PM, M-H.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Shawn R. Hutchinson/  
Examiner, Art Unit 1794

/Carol Chaney/  
Supervisory Patent Examiner, Art Unit 1794